III. IN THE CLAIMS

Please cancel pending claims 1 through 82, and add new claims 83 to 126 as follows:

83. (New) An electronic game device comprising

a housing,

a playfield that consists of a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications, and a keypad switch to activate the playing position,

a microprocessor to control the operation of the device, and

a control logic executed on the processor that assigns a first set of binary numbers to the playing positions on the playfield; routes binary numbers respective to the playing position associated with an activated keypad switch to each other; generates a second set of binary numbers from said first set of binary numbers using an appropriate Boolean function, or a lookup table; assigns said second set of binary numbers to the indicators on the playfield to provide the visual indications; and determines when the objective of the game is met.

84. (New) An electronic game device as recited in claim 83 wherein said keypad switch and indicator at each playing position are provided by an illuminated keypad switch.

85. (New) An electronic game device as recited in claim 84 wherein the keypad switch is illuminated using light emitting means.

86. (New) An electronic game device as recited in claim 85 wherein said light-emitting means is provided using multi-colored light emitting diodes.

87. (New) An electronic game device as recited in claim 83 wherein said indicator is provided by a Liquid Crystal Display (LCD) screen, or a Cathode Ray Tube (CRT) screen.

88. (New) An electronic game device as recited in claim 84, wherein said plurality of visual indications consists of at least one illuminated color, and a color reflected from the surface of the indicator when the keypad switch is dark.

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89.   (New) An electronic game device as recited in claim 87, wherein said plurality of visual indications consists of at least one image, and a visual indication resulting from the absence of an image at a playing position.

90.   (New) An electronic game device as recited in claim 83, further comprising means to generate visual and audible effects during game play, and at the conclusion of a game.

91.   (New) An electronic game device as recited in claim 83, further comprising a segment of the control logic executed on the processor that provides a plurality of games by varying the assignment of the first set of binary numbers to playing positions.

92.   (New) An electronic game device as recited in claim 83, further comprising means to vary the difficulty level of play.

93.   (New) An electronic game device as recited in claim 83, further comprising a plurality of games stored in the data section of the control program, wherein each game is defined by a different assignment of predefined binary numbers to playing positions.

94.   (New) An electronic game device as recited in claim 93, wherein said plurality of games is in various levels of difficulty.

95.   (New) An electronic game device as recited in claim 83, wherein the shape of said housing is in the form of a three-dimensional configuration, and wherein said plurality of playing positions are mapped on the surface of the three-dimensional configuration.

96.   (New) An electronic game device as recited in claim 83, wherein the segment of control logic that routes binary numbers to each other consists of an algorithm that routes binary numbers assigned to the playing positions at the top, bottom, left, and right of the activated keypad switch, to each other.

97.   (New) An electronic game device as recited in claim 96, wherein said algorithm simulates the operation of a logical element, which is depicted as a geometric square that has two states, and further comprises eight (8) ports (four input ports and four output ports) located at the four (4) edges of the square such that one input port and one output port are located at each edge of said square to provide eight (8) possible internal routes within the square. Four of these internal routes are used to route binary numbers to each other. The remaining four internal routes could be used to provide a dynamic assignment of the second set of binary numbers to the indicators. The eight routes are described as follows:

    a. if the state of the square is set to "1", then:

        (i) the input port at the bottom edge of the square connects to the output port at the top edge of the square,

        (ii) the input port at the left edge of the square connects to the output port at the right edge of the square,

        (iii) the input port at the right edge of the square connects to the output port at the bottom edge of the square,

        (iv) the input port at the top edge of the square connects to the output port at the left edge of the square, or

    b. if the state of the square is set to "0", then:

        (i) the input port at the bottom edge of the square connects to the output port at the right edge of the square,

        (ii) the input port at the left edge of the square connects to the output port at the top edge of the square,

        (iii) the input port at the right edge of the square connects to the output port at the left edge of the square,

        (iv) the input port at the top edge of the square connects to the output port at the bottom edge of the square.

98. (New) An electronic game device as recited in claim 83, wherein said first set of binary numbers is generated randomly.

99. (New) An electronic game device as recited in claim 83, wherein said first set of binary numbers is predefined, and is stored as program data in a data section of the control program.

100. (New) An electronic game device comprising:

a playfield that consists of a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications, and a control means to activate the playing position,

a microprocessor to control the operation of the device,

means to assign a first set of binary numbers to playing positions on the playfield,

means to route the binary numbers respective to an activated playing position to each other,

means to generate a second set of binary numbers from said first set of binary numbers,

means to assign said second set of binary numbers to the indicators on the playfield to provide the visual indications, and

means to determine if the objective of the game is met.

101. (New) An electronic game device as recited in claim 100 further comprising a housing.

102. (New) An electronic game device as recited in claim 100, further comprising means to generate a plurality of games.

103. (New) An electronic game device as recited in claim 100, wherein said means to generate a second set of binary numbers employs an appropriate Boolean function, or a lookup table.

104.   (New) An electronic game device as recited in claim 101, wherein said control mechanism that activates a playing position consists of a keypad switch.

105.   (New) An electronic game device as recited in claim 101, wherein said control mechanism that activates a playing position consists of a cursor control switch mechanism.

106.   (New) An electronic game device as recited in claim 100, wherein said means to route binary numbers to each other includes an algorithm, which simulates the operation of a logical element, which is depicted as a geometric square that has two states, and further comprises eight (8) ports (four input ports and four output ports) located at the four (4) edges of the square such that one input port and one output port are located at each edge of said square to provide eight (8) possible internal routes within the square. Four of these internal routes are used to route binary numbers to each other. The remaining four internal routes could be used to provide a dynamic assignment of the second set of binary numbers to the indicators. The eight routes are described as follows:

    a.   if the state of the square is set to "1", then:

        (i)   the input port at the bottom edge of the square connects to the output port at the top edge of the square,

        (ii) the input port at the left edge of the square connects to the output port at the right edge of the square,

        (iii) the input port at the right edge of the square connects to the output port at the bottom edge of the square,

        (iv) the input port at the top edge of the square connects to the output port at the left edge of the square, or

    b.   if the state of the square is set to "0", then:

        (i)   the input port at the bottom edge of the square connects to the output port at the right edge of the square,

(ii) the input port at the left edge of the square connects to the output port at the top edge of the square,

(iii) the input port at the right edge of the square connects to the output port at the left edge of the square,

(iv) the input port at the top edge of the square connects to the output port at the bottom edge of the square.

107. (new) An electronic game device as recited in claim 100, wherein said first set of binary numbers is generated randomly.

108. (New) An electronic game device as recited in claim 100, wherein said first set of binary numbers is predefined, and is stored in a data section of the control program.

109. (New) An electronic game device as recited in claim 100, wherein said means to assign said second set of binary numbers to indicators consist on an algorithm that employs the dynamic routes of the routing squares on the playfield.

110. (New) An electronic game device as recited in claim 100, wherein said means to assign said second set of binary numbers to indicators is based on a fixed assignment, wherein the elements of the second set of binary numbers are assigned to the same indicators during game play.

111. (New) An electronic game device comprising:

a playfield that consists of a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications,

a switch control mechanism to enable a player to select and activate any playing position on the playfield, and which consists of either a keypad switch at each playing position, or a cursor control switch structure,

a microprocessor to control the operation of the device,

a control program executed on the processor that assigns a first set of binary numbers to the playing positions on the playfield, routes the binary numbers respective to an activated playing position to each other, generates a second set of binary numbers from said first set of binary numbers using an appropriate Boolean function or a lookup table, assigns said second set of binary numbers to the indicators on the playfield to provide the visual indications, and determines if the objective of the game is met.

112.   (New) An electronic game device as recited in claim 111 further comprising a housing.

113.   (New) An electronic game device as recited in claim 111 further comprising a control program segment that provides a plurality of games by varying the assignment of binary numbers to playing positions on the playfield.

114.   (New) An electronic game device as recited in claim 111, wherein the program segment that assigns the second set of binary numbers to indicators is based on a fixed relationship between the elements of said second set and the indicators.

115.   (New) An electronic game device as recited in claim 111, wherein the indicators are implemented by light emitting means.

116.   (New) An electronic game device as recited in claim 115, wherein said plurality of visual indications include at least one illuminated color, and one reflected color when an indicator is dark.

117.   (New) An electronic game device as recited in claim 115, wherein said light emitting means consist of one, or a plurality of light emitting diodes at each playing position.

118.   (New) An electronic game device as recited in claim 117, wherein the light emitting diodes have different colors.

119.   (New) An electronic game device as recited in claim 111, wherein the indicators are implemented using an LCD screen or a CRT screen.

120.   (New) An electronic game device as recited in claim 111, wherein said plurality of visual indications consists of a geometric shape in different colors.

121.   (New) An electronic game device as recited in claim 111, wherein said plurality of visual indications consists of at least one image, and a visual indication resulting from the absence of an image at a playing position.

122.   (New) An electronic game device as recited in claim 111, wherein said plurality of visual indications consists of a plurality of images.

123.   (New) An electronic game device as recited in claim 111, wherein said first set of binary numbers is generated randomly.

124.   (New) An electronic game device as recited in claim 111, wherein said first set of binary numbers is predefined, and is stored in a data section of the control program.

125.   (New) An electronic game device as recited in claim 111, wherein said housing is in the form of a three-dimensional configuration, and wherein the plurality of playing positions is mapped on the surface of said three-dimensional configuration.

126.   (New) A method for an electronic game device having a playfield that includes a plurality of playing positions, and wherein each playing position includes an indicator that provides a plurality of visual indications, comprising the steps of:

assigning a first set of binary numbers to the playing positions,

routing the binary numbers respective to an activated playing position to each other,

generating a second set of binary numbers from said first set of binary numbers,

assigning said second set of binary numbers to the indicators, and

determining if the objective of the game is met.